WHAT IS CLAIMED IS:

1. A computer implemented method of clipping a subject polygon by a clip polygon and forming trapezoids filling the clipped area comprising the steps of:

(1) representing the subject polygon and the clip polygon each as a set of edges, each edge represented by minimum Y coordinate, a minimum X coordinate, a maximum Y coordinate and a slope;

(2) sorting said subject polygon set of edges and said clip polygon set of edges in increasing values of minimum Y coordinate and storing said sorted set of edges as an array of edges;

(3) determining the greatest minimum Y coordinate of a first edge entry in said subject polygon set of edges and a first edge entry in said clip polygon set of edges, thereby determining a bottom Y coordinate of a next trapezoid to be formed;

(4) detecting all intersections between edges;

(5) forming trapezoids for all areas within both said subject polygon and said clip polygon between successive pairs in the direction perpendicular to the scan line dimension of all edge ends and edge intersections between said greatest minimum Y coordinate of said subject polygon edges and said clip polygon edges and a smallest maximum Y coordinate of said subject polygon and said clip polygon edges.

2. A computer implemented method of rasterizing a page in a page description language in a multiprocessor integrated circuit comprising the steps of:

interpreting said page in said page description language with a first processor of said multiprocessor integrated circuit;

spawning a subtask from said first processor to another of said processors for sorting polygon edges in increasing minimum Y coordinate.

3. The computer implemented method of claim 4, wherein:

said first processor is a reduced instruction set processor having a floating point computation unit; and

each of said other processors is a digital signal processor having an integer multiplier unit.

4. The computer implemented method of claim 5, further comprising:

spawning a subtask from said first processor to another of said processors for detecting a Y coordinate of edge intersection via successive midpoint approximation.

5. The computer implemented method of claim 5, further comprising:

calculating a Y coordinate of edge intersection employing said floating point calculation unit of said first processor.

6. A printer comprising:

a transceiver adapted for bidirectional communication with a communications channel;

a memory;

a print engine adapted for placing color dots on a printed page according to received image data and control signals; and

a programmable data processor connected to said transceiver, said memory and said print engine, said programmable data processor programmed to

receive print data corresponding to pages to be printed from the communications channel via said transceiver;

convert said print data into image data and control signals for supply to said print engine for printing a corresponding page, said conversion including clipping a subject polygon by a clip polygon and forming trapezoids filling the clipped area by:

representing the subject polygon and the clip polygon each as a set of edges, each edge represented by minimum Y coordinate, a minimum X coordinate, a maximum Y coordinate and a slope,

sorting said subject polygon set of edges and said clip polygon set of edges in increasing values of minimum Y coordinate and storing said sorted set of edges as an array of edges,

determining the greatest minimum Y coordinate of a first edge entry in said subject polygon set of edges and a first edge entry in said clip polygon set of edges, thereby determining a bottom Y coordinate of a next trapezoid to be formed,

detecting all intersections between edges,

forming trapezoids for all areas within both said subject polygon and said clip polygon between successive pairs in the direction perpendicular to the scan line dimension of all edge ends and edge intersections between said greatest minimum Y coordinate of said subject polygon edges and said clip polygon edges and a smallest maximum Y

coordinate of said subject polygon and said clip polygon edges; and

controlling said print engine according to said image data and control signals to print a corresponding page.

7. A printer comprising:

a transceiver adapted for bidirectional communication with a communications channel;

a memory;

a print engine adapted for placing color dots on a printed page according to received image data and control signals; and

a multiprocessor integrated circuit connected to said transceiver, said memory and said print engine, said multiprocessor integrated circuit including a plurality of data processors collectively programmed to

receive print data corresponding to pages to be printed from the communications channel via said transceiver;

convert said print data into image data and control signals for supply to said print engine for printing a corresponding page, said conversion including rasterizing a page in a page description language by:

interpreting said page in said page description language with a first data processor of said multiprocessor integrated circuit,

spawning a subtask from said first data processor to another of said plurality of data processors for sorting polygon edges in increasing minimum Y coordinate; and

controlling said print engine according to said image data and control signals to print a corresponding page.

8. The printer of claim 7, wherein:

said first data processor of said multiprocessor integrated circuit is a reduced instruction set processor having a floating point computation unit; and

each of said other data processors of said multiprocessor integrated circuit is a digital signal processor having an integer multiplier unit.

9. The printer claim 8, wherein:

said multiprocessor integrated circuit is further collectively programmed to spawn a subtask from said first data processor to another of said plurality of data processors for detecting a Y coordinate of edge intersection via successive midpoint approximation.

10. The printer of claim 8, wherein:

said multiprocessor integrated circuit is further collectively programmed to calculate a Y coordinate of edge intersection employing said floating point calculation unit of said first data processor.